

wherein

R^1 represents C_{1-12} alkyl, $-(CH_2)_a$ -aryl, or $(CH_2)_a$ Het¹ (all of which are optionally substituted by one or more substituents selected from -OH, halo, cyano, nitro, C_{1-4} alkyl and/or C_{1-4} alkoxy);

a represents 0, 1, 2, 3, or 4;

Het¹ represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

X represents O or S;

R^{5a} and R^{5b} independently represent H or C_{1-3} alkyl;

R^2 and R^3 independently represent H, C_{1-4} alkyl (optionally substituted with one or more nitro or cyano groups), OR^7 , $N(R^{7a})R^{7b}$, $OC(O)R^8$ or together form $-O-(CH_2)_2-O-$, $-(CH_2)_3-$, $-(CH_2)_4-$ or $-(CH_2)_5-$;

R^7 and R^8 independently represent H, C_{1-6} alkyl or $-(CH_2)_b$ -aryl (which latter two groups are optionally substituted by one or more substituents selected from -OH, halo, cyano, nitro, C_{1-4} alkyl and/or C_{1-4} alkoxy);

R^{7a} and R^{7b} independently represent H or C₁₋₆ alkyl;

b represents 0, 1, 2, 3 or 4;

R⁴ represents H or C₁₋₆ alkyl;

D represents H, -OH, or -(CH₂)_cN(R¹⁰)(R¹¹);

c represents 0, 1, 2, 3 or 4;

R¹⁰ represents H, C₁₋₆ alkyl, -(CH₂)_d-aryl, -C(NH)NH₂, -S(O)₂R¹³, -eN(R¹⁴)(R¹⁵), -C(O)R¹⁶ or -C(O)OR¹⁷;

e represents 1 or 2;

R¹¹ represents H, C₁₋₆ alkyl, -C(O)R¹⁸ or -(CH₂)_f-aryl (which latter group is optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro, C₁₋₆ alkyl and/or C₁₋₆ alkoxy);

R¹⁴, R¹⁵, R¹⁶, R¹⁷ and R¹⁸ independently represent H, C₁₋₆ alkyl, Het² or -(CH₂)_g-aryl (which latter three groups are optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro, C₁₋₆ alkyl and/or C₁₋₆ alkoxy);

R¹³ represents C₁₋₆ alkyl, aryl or -(CH₂)_h-aryl (all of which are all optionally substituted by one or more substituents chosen from halo, nitro, C₁₋₆ alkyl and/or C₁₋₆ alkoxy);

d, f, g and h independently represent 0, 1, 2, 3 or 4;

Het² represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

R⁶ represents one or more optional substituents selected from -OH, cyano, halo, amino, nitro, C₁₋₆ alkyl (optionally terminated by -N(H)C(O)OR^{18a}), C₁₋₆ alkoxy, -C(O)N(H)R¹⁹, -NHC(O)N(H)R²⁰, -N(H)S(O)₂R²¹ and/or -OS(O)₂R²²;

R¹⁹ and R²⁰ independently represent H or C₁₋₆ alkyl;

R^{18a}, R²¹ and R²² independently represent C₁₋₆ alkyl;

A represents a single bond, C₁₋₆ alkylene, -N(R²³)(CH₂)_j- , -O(CH₂)_j- or -(CH₂)_jC(H)(OR²³)(CH₂)_k- (in which latter three groups, the -(CH₂)_j- group is attached to the bispidine nitrogen atom, and which latter four groups are all optionally substituted by one or more OH groups);

B represents a single bond, C₁₋₄ alkylene, -(CH₂)_mN(R²⁴)-, (CH₂)_mS(O)_n-, -(CH₂)_mO- (in which three latter groups, the -(CH₂)_m- group is attached to the carbon atom bearing D and R⁴), -C(O)N(R²⁴)- (in which latter group, the -C(O)- group is attached to the carbon atom bearing D and R⁴), N(R²⁴)C(O)O(CH₂)_m- or -N(R²⁴)(CH₂)_m- (in which latter two groups, the N(R²⁴) group is attached to the carbon atom bearing D and R⁴);

j, k and m independently represent 0, 1, 2, 3 or 4;

n represents 0, 1 or 2;

R²³ represents H, C₁₋₆ alkyl or

R²⁴ represents H or C₁₋₆ alkyl;

R²⁵ represents H, C₁₋₆ alkyl, Het³ or -(CH₂)_p-aryl (which latter two groups are optionally substituted by one or more substituents selected from -OH, cyano, halo, amino, nitro, C₁₋₆ alkyl and/or C₁₋₆ alkoxy);

Het³ represents a five to ten-membered heterocyclic ring containing one or more heteroatoms selected from oxygen, nitrogen and/or sulfur, and which also optionally includes one or more =O substituents;

p represents 0, 1, 2, 3 or 4;

or a pharmaceutically acceptable salt, , N-oxide or quaternary ammonium derivative thereof;

wherein alkyl groups that R¹, R², R³, R⁴, R^{5a}, R^{5b}, R⁶, R⁷, R^{7a}, R^{7b}, R⁸, R¹⁰, R¹¹, R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸, R^{18a}, R¹⁹, R²⁰, R²¹, R²², R²³, R²⁴, R²⁵ and D may represent, and with which R¹, R⁷, R⁸, R¹¹, R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R²⁵ may be substituted; and alkoxy groups and R⁶ may represent, and with which R¹, R⁷, R⁸, R¹¹, R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R²⁵ may be substituted, may be linear or, when there is a sufficient number (i.e. three) of carbon atoms, be branched and/or cyclic, and wherein, when there is a sufficient number (i.e. four) of carbon atoms, such alkyl and alkoxy groups may also be part cyclic/acyclic, and wherein such alkyl and alkoxy groups may also be saturated or, when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or interrupted by oxygen and/or substituted by one or more fluoro groups; and

wherein alkylene groups that A and B may represent, and -(CH₂)- containing groups that R¹, R² and R³ (together), R⁷, R⁸, R¹⁰, R¹¹, R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸, R²⁵, A, B and D may include, may be linear or, when there is a sufficient number (i.e. two) of carbon atoms, be branched, and wherein such alkylene groups and -(CH₂)- containing chains may also be saturated or, when there is a sufficient number (i.e. two) of carbon atoms, be unsaturated and/or interrupted by oxygen;

provided that:

(a) when D represents either H or -OH, and R^{5a} and R^{5b} both represent H, then at least one of R² and R³ represents OR⁷, OC(O)R⁸ or C₁₋₄ alkyl, which alkyl group is substituted with one or more nitro or cyano groups; and

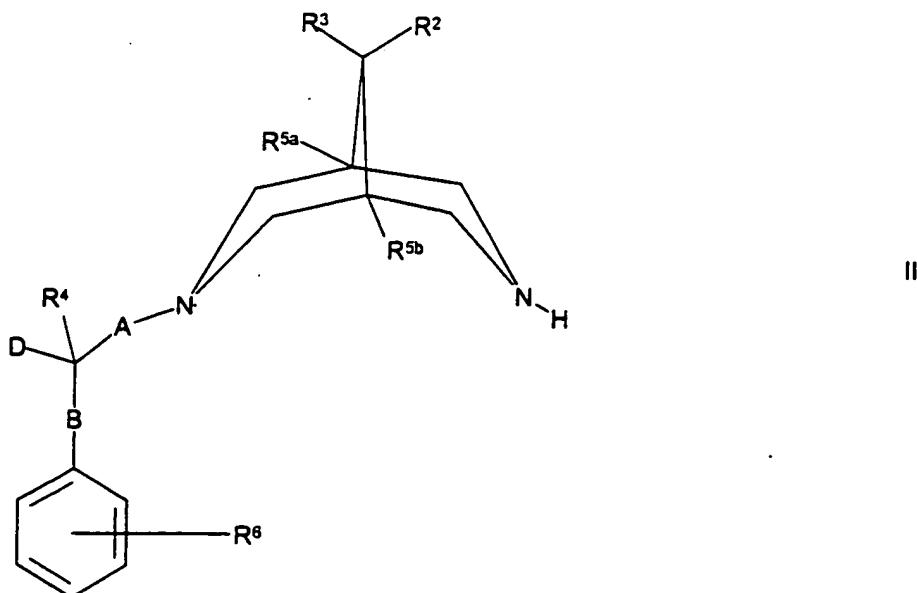
(b) when D represents -OH or -(CH₂)_cN(R¹⁰)R¹¹ in which c represents 0, then:-

- (i) A does not represent $-N(R^{23})(CH_2)_j-$, $-O(CH_2)_j-$ or $-CH_2_jC(H)(OR^{23})(CH_2)_k-$ (in which k is 0); and/or
- (ii) m does not represent 0 when B represents $-(CH_2)_mN(R^{24})-$, $-(CH_2)_mS(O)_n-$ or $-(CH_2)_mO-$.

2 (Amended). A compound as claimed in Claim 1, wherein R¹ represents optionally substituted $-(CH_2)_a$ -phenyl, in which a is 0, 1, 2 or 3, or optionally substituted, optionally unsaturated, linear, branched or cyclic, C₁₋₁₈ alkyl (which latter group may also be interrupted by an oxygen atom).

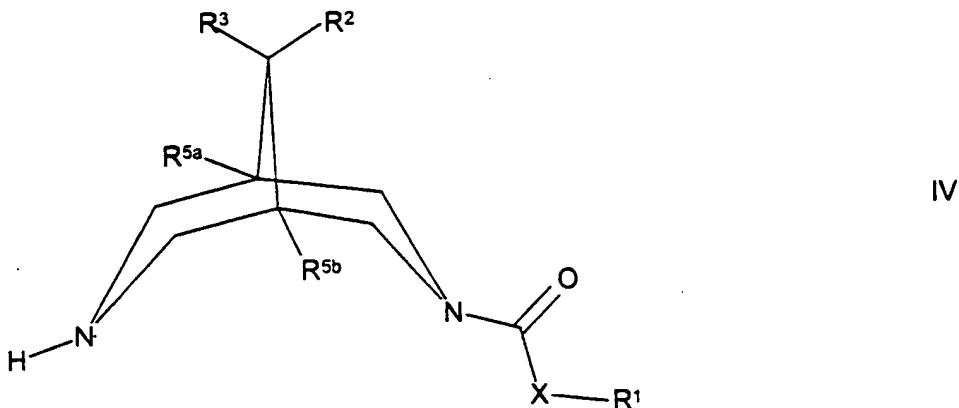
20 (Amended). A method of prophylaxis or treatment of an arrhythmia which method comprises administration of a therapeutically effective amount of a compound as defined in Claim 1 to a person in need thereof.

22 (Amended). A compound of formula II



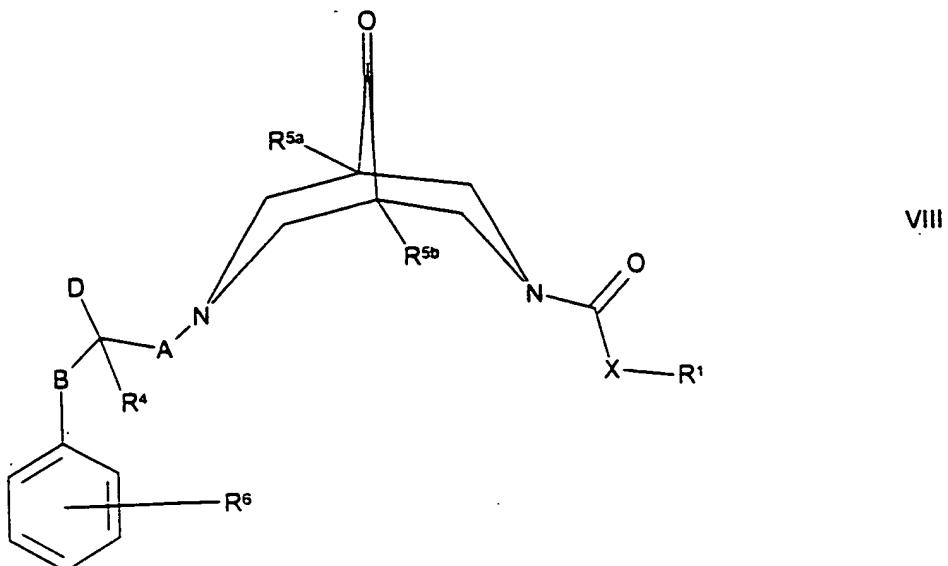
wherein R², R³, R⁴, R^{5a}, R^{5b}, R⁶, A, B and D are as defined in Claim 1, or a protected derivative thereof, provided that when R^{5a} and R^{5b} both represent H, then D does not represent H or OH.

23 (Twice amended). A compound of formula IV



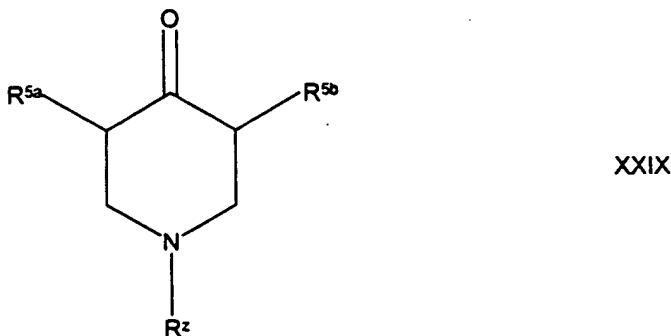
wherein R¹, R², R³, R^{5a}, R^{5b} and X are as defined in Claim 1, or a protected derivative thereof, provided that when R^{5a} and R^{5b} both represent H, then at least one of R² and R³ represents OR⁷, OC(O)R⁸ or C₁₋₄ alkyl, which alkyl group is substituted with one or more nitro or cyano groups.

24 (Amended). A compound of formula VIII



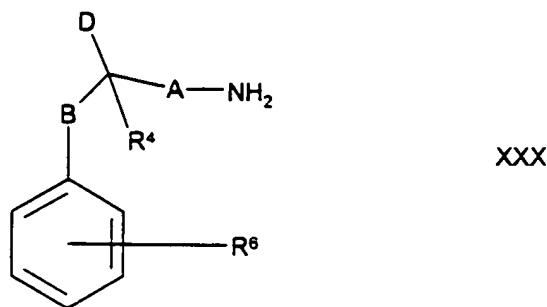
wherein R¹, R⁴, R^{5a}, R^{5b}, R⁶ A, B, D and X are as defined in Claim 1, or a protected derivative thereof, provided that when R^{5a} and R^{5b} both represent H, then D does not represent H or OH.

26 (Twice amended). A process for the preparation of a compound of formula VIII, as defined in Claim 24, or a compound of formula XVII, as defined in Claim 25, which comprises reaction of a compound of formula XXIX,



wherein R^Z represents H or -C(O)XR¹ and R¹, R^{5a}, R^{5b} and X are as defined in

Claim 1 with a compound of formula XXX,



or a protected derivative thereof, wherein R⁴, R⁶, A, B and D are as defined in

Claim 1, in the presence of a formaldehyde.